STATE OF ILLINOIS
DEPARTMENT OF
REGISTRATION AND EDUCATION
RONALD E. STACKLER
DIRECTOR, SPRINGFIELD

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WILLIAM L. EVERITT

Illinois State Water Survey

WATER RESOURCES BUILDING • MAIL: BOX 232, URBANA, ILLINOIS 61801 • AREA CODE 217
605 E. SPRINGFIELD, CHAMPAIGN PHONE 333-2210

WILLIAM C. ACKERMANN, CHIEF

April 8, 1975

REPORT ON GROUNDWATER CONDITIONS IN SECTION 4, T. 44N., R. 2E., WINNEBAGO COUNTY, ILLINOIS

By

James P. Gibb, Assistant Engineer

This report on the availability of groundwater for a supplemental municipal supply for the City of Loves Park in Section 4, T. 44N., R. 2E., Winnebago County, is prepared at the request of Loves Park Water Department, 5440 Walker Avenue, Loves Park, Illinois 61111.

The enclosed data on the municipal wells at Rockford, North Park, and Loves Park generally describe the groundwater conditions in the area of interest. West of the location of interest along the Rock River and over a preglacial bedrock valley extensive sand and gravel deposits are tapped as a source for municipal and industrial supplies. However, as indicated in the attached geologic report, the area of interest lies on a bedrock upland and only limited quantities of water (less than 15 or 20 gpm) ~~can generally be~~ developed from the sand and gravel deposits present in this area.

The existing Loves Park Well No. 3 taps the St. Peter, Ironton-Galesville, and Eau Claire Sandstones at a depth of 863 feet (bottom elevation near sea level). The reported yield of this well is from 800 to 1000 gpm.

The mineral quality of water from this well is illustrated on the enclosed analysis (see Lab. No. 03726). The water is hard, contains little or no iron, and is only moderately mineralized (300 to 350 mg/l total dissolved minerals).

Larger quantities of water (from 1000 to 2500 gpm) have been developed by several wells tapping the St. Peter, Ironton-Galesville, Eau Claire, and underlying Mt. Simon Sandstones. Wells tapping these units range in depth from about 1200 to 1600 feet and are generally finished near elevations 450 to 500 feet below mean sea level.

Water obtained from these wells is only slightly more mineralized than that obtained from the shallower bedrock units. Hardness ranges

from 300 to 350 mg/l, iron 0.1 to 1.0 mg/l, and total dissolved minerals from 350 to 400 mg/l.

In summary, the chances for developing the desired supply at the location of interest appear good. One well penetrating into the Eau Claire rocks at depths from about 800 to 900 feet should be capable of yielding from 500 to 750 gpm. If a larger quantity of water is desired, a well penetrating into the underlying Mt. Simon rocks at a depth of 1300 to 1350 feet should be capable of yielding from 1000 to 2000 gpm.

Joseph A. Simo

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

DIVISION OF PUBLIC WATER SUPPLIES

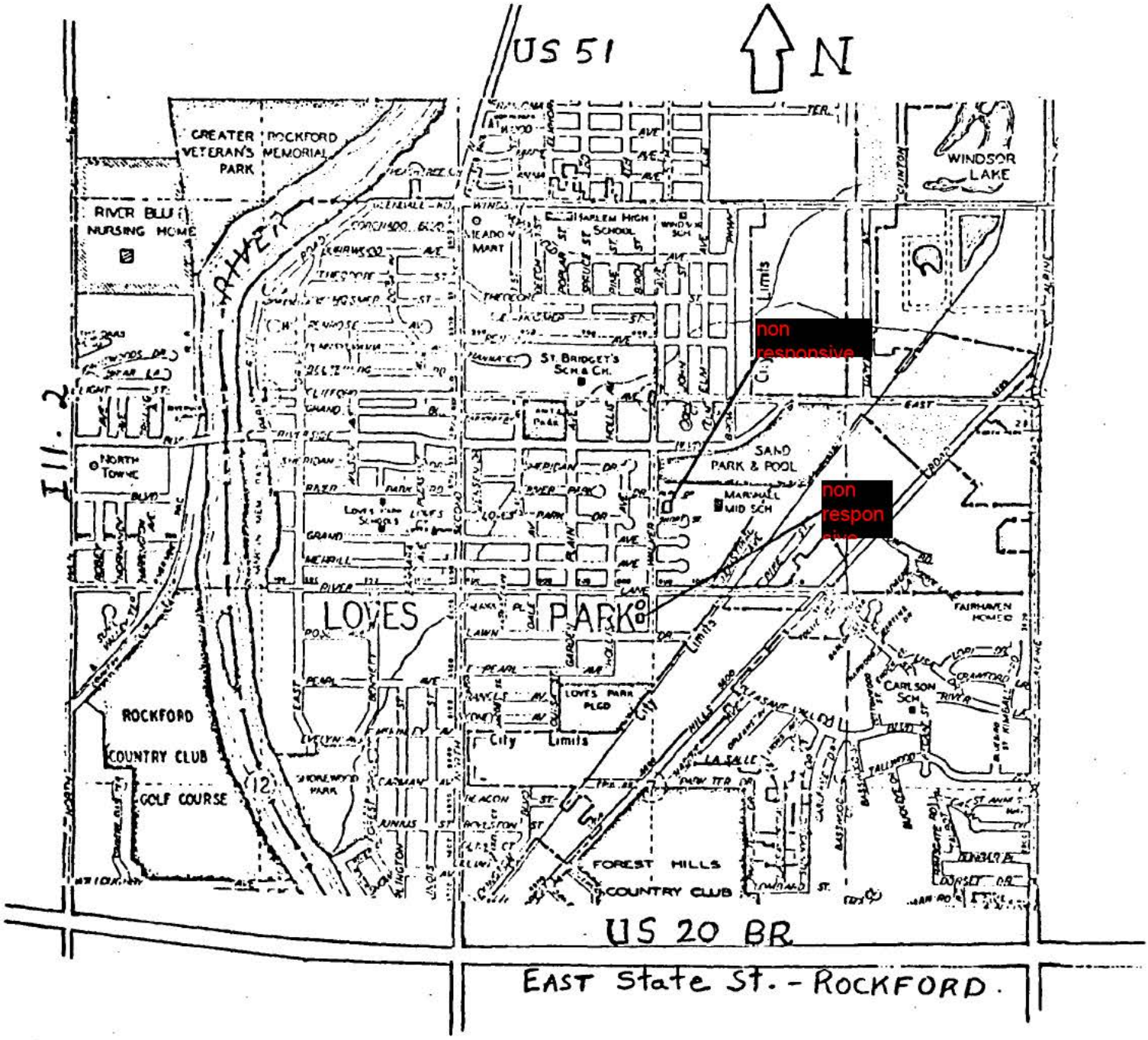
Inventory Sheet

Date inventoried 1/11/74

Supply: LOVES PARK

Sheet 1 of 23

Item: LOCATION



W-V- Loves Park #4 (1)

State Water Survey Division

ENR

Water Resources Building
605 East Springfield Avenue
P.O. Box 5050, Station A
Champaign, Illinois 61820
217/333-2211

Illinois Department of
Energy and Natural Resources

May 8, 1984

Mr. Dennis P. McKenna
Executive Director
Winnebago County Soil and Water Conservation District
3820 Auburn St.
Rockford, Illinois 61103

Dear Mr. McKenna:

The Water Use Act of 1983 has required the Illinois State Water Survey to evaluate the potential impacts of proposed wells designed to pump 100,000 gallons per day (70 gallons per minute) or more. You have submitted to us information on the Loves Park Well #4 [redacted] non [redacted] non Winnebago County. The well has a design capacity of 2000 gpm, is 1313 feet deep, and is completed in the Cambrian-Ordovician aquifer.

Well records of the area indicate that overlying the Cambrian-Ordovician aquifer are the Shallow Dolomite aquifer and an unconsolidated sand and gravel aquifer. Our records indicate that within a half mile radius of Well #4 there are numerous wells finished in the Shallow Dolomite and sand and gravel aquifers. Also, the closest well finished in the same aquifer is Loves Park Well #3 [redacted] no [redacted].

Based on our evaluation of the available data we conclude that the wells finished in the overlying Shallow Dolomite or sand and gravel aquifer should not be affected by Loves Park Well #4. Furthermore, the Loves Park Well #3 finished in the same aquifer as that of Well #4 will exhibit approximately 16 to 69 feet of additional drawdown as a result of well interference by Well #4. The exact amount will depend on how Well #4 is to be used. These amounts were determined from distance-drawdown curves for the Loves Park Well #4 pumping at the design capacity for 3 days and 365 days. Although the well may not be pumped at the 2000 gpm design rate or the selected time period, the data was used because it yields a range of minimum and maximum estimates of the impact of Loves Park Well #4. The well interference represents 6.8 to 29 percent of the present total available drawdown and was considered as having a minimum to moderate impact on Loves Park Well #3 because of the large amount of total available drawdown for wells completed in the Cambrian-Ordovician aquifer.

At present the available groundwater resource is able to meet the anticipated water demand of the Loves Park Well #4. Aquifer yield data suggests that future withdrawals may be inhibited because the present withdrawals are fast approaching the safe yield of the aquifer. Therefore, the potential for growth could be limited.

Should you have any questions or comments, please feel free to contact us.

Sincerely,
ILLINOIS STATE WATER SURVEY

Mark W. Hampton
Assistant Hydrologist
Phone: (217) 333-1724

MWH:bh

WIN Loves Park #4

State Water Survey Division

Water Resources Building
605 East Springfield Avenue
P.O. Box 5050, Station A
Champaign, Illinois 61820-9050
217/333-2211

Illinois Department of
Energy and Natural Resources

Northern Regional Office
101 North Island Avenue
Batavia, Illinois 60510
(312) 879-6466

July 6, 1984

Illinois Environmental Protection Agency
Division of Public Water Supply
2200 Churchill Road
Springfield, Illinois 62706

Gentlemen:

Attached are copies of test data for Well No. 4 at Loves Park, Winnebago County. That data were collected by Milaeger Well and Pump Company.

Very truly yours,
STATE WATER SURVEY DIVISION

Robert T. Sasman

Robert T. Sasman
Hydrologist

RTS/jm
Encl.

Well Production Test

Milaeger Well and Pump Company
Loves Park

Winnebago County

WELL NO. 4

Owner:	Loves Park
Location:	WIN, non [redacted] non responsive
Date of Test:	2/6/84
Length of Test:	22 hours
Aquifer:	Sandstone (Aq Code 6697)
Date Drilled:	February 1984

WELL DATA

Pumped Well	
Well No.:	4
Depth:	1313'
Driller:	Milaeger Well and Pump Company
Hole Record:	26" 0 - 370', 21¼" 370-1313'
Casing Record:	26" +1 to 90', 22" +2 to 370' (cemented)
Screen Record:	-
Gravel Pack Record:	-
Pump & Power:	Test turbine
Surface Elevation:	888'
Measuring Point:	top of casing, 2' above LSD
Measuring Equipment:	-
Water Sample:	-
Static Level:	200'
Remarks:	

MILAEGER WELL AND PUMP CO., INC.

LOVES PARK WELL #4
DRILLERS LOG

DEPTHS	THICKNESS	DESCRIPTION	FORMATION
0-85	85	sand, gravel, clay	glacial drift
85-335	250	limestone	Galena Platteville Dolomi
335-541	250	sandstone, white-fine	Glenwood-St. Peter Sandst
541-585		sandstone, pink-coarse	
585-610	55	limestone, gray-hard	Trempealeau
610-615		limestone, gray-hard with shale streaks	
615-630		limestone, light brown-hard	
630-640		limestone, gray	
640-674	50	sandy limestone, pinkish with red shale streaks	Franconia
675-690		shale, red & gray, muddy & sandy	
690-707	160	sandstone, reddish brown, hard, sharp	Ironton-Galesville sandstone
707-727		sandstone, gray-hard	
727-740		sandstone, off-white, hard	
740-747		sandstone, white-very hard	
747-755		sandstone, limestone & shale, reddish, hard	
755-777		sandstone, pinkish, medium hard	
777-850		sandstone, white-fine soft	
850-895	347	shale, red-gray, hard	Eau Claire Dolomite
895-937		shale, hard, gray	
937-947		shale & limestone, very hard,gray	
947-963		sandstone & shale, hard-gray	
995-1069		sandstone, light gray, very hard	
1069-1197		sandstone, white, hard	
1197-1265	116	sandstone, gray, very hard	Undifferentiated Mount Simon sandston
1265-1303		sandstone, pink, hard	
1303-1313		sandstone, pink with shale streaks, hard	

C 3941 FEB23

ENVIRONMENTAL PROTECTION AGENCY STATE OF ILLINOIS
DIVISION OF LAND/NOISE POLLUTION CONTROL ANALYSIS FORM

Key for Determining Type of Monitoring Point

(S) Surface Water	(G) Ground Water	(L) Leachate	(X) Special
(1) Upstream	(1) Monitor Well	(1) Flow or seep	(1) Soil
(2) Mid-site	(2) Private well	(2) Pond	(2) Waste
(3) Downstream	(3) Spring	(3) Collection System	(3) Other
(4) Run-off	(4) Lysimeter		
(5) Impounded			

Name (Private Well, Stream, Spring, Impounded Water only)

L P C S M 0 1 0 (1) (8) SITE INVENTORY NUMBER (9) 2010150I (16)

MONITOR POINT NUMBER (17) G104 (20) DATE COLLECTED (21) 022184 (26)

WINNEBAGO Co. - LPC REGION R (27)

Rockford Park District

LOVES PARK (Location) / SAND PARK (Responsible Party)

Legal (1); Illegal (2); Indicate One: 2 (28) Board Order (X) (29)

Time Collected 4W a.m. p.m. Unable to collect sample (X) (30)

Stick-up ___ ft. (31) (33) Depth to water 13.2 ft. (from T.O.C.) (34) (36)

Sample temp. ___ ° (37) (39) Background (X). . . . (40)

Ground water sampled by (Indicate one): (1) Bailing; (2) Pumping; (3) Other (Specify) BAILING (41)

Sample Appearance: Clear

Collector comments: filtered in office 2-22-84

K. L. Plummer — Collected by — DLPC — Div. or Company

D. Melvyn — Transported by — WPC — Div. or Company

LAB USE ONLY

Lab No. C003941

Date Rec'd 2-23-84

Rec'd by [illegible] Time 1:50 a.m. p.m.

Sample temp. acceptable YES NO

Sample properly preserved YES NO

Date completed

Date forwarded MAY 9 1984

J Daugherty — Supervisor Signature

Name Environmental Protection Agency
Address Division of Laboratory Services
of Lab 2121 W. Taylor Street
Chicago, Illinois 60612

LPCSM020
Lab Comments:

(27) Hg<0.0001 0 (30)

(37) ________ (46)

(47) ________ (56)

(57) ________ (66)

Private Lab (X)

IEPA Lab (X) X (77)

LPCSM030

	No.	Parameters*	PPM
X	27	Alkalinity[1]	350
	31	Ammonia as N	
X	37	Arsenic As	0.002
X	44	Barium Ba	0.0
	49	BOD -5	
X	53	Boron B	0.3
X	58	Cadmium Cd	0.00
X	64	Calcium Ca	86 *
	69	COD	
X	73	Chloride Cl	29

LPCSM040

	No.	Parameters*	PPM
X	27	Chromium Cr (tot)	0.00
X	33	Chromium Cr^{+6}	
X	39	Copper Cu	0.00
X	45	Cyanide[2] CN	0.00
	52	Fecal Coli	
X	56	Fluoride F	0.2
X	61	Hardness $CaCO_3$	370
X	65	Iron Fe	0.1
X	70	Lead Pb	0.00

LPCSM050

	No.	Parameters*	PPM
X	27	Magnesium Mg	38 *
X	32	Manganese Mn	0.23
X	38	Mercury Hg	———
X	45	Nickel Ni	0.0
	51	Nitrate-nitrite N	
	56	Oil and Grease	
X	60	pH (Units)	7.7
X	63	Phenolics	0.000
X	70	Phosphorus P	NO BOTTLE
X	76	Potassium K	1.7

LPCSM060

	No.	Parameters*	PPM
X	27	R.O.E. (180°C)	424
X	31	Selenium Se	0.000
X	36	Silver Ag	0.00
X	44	Sodium Na	15.8
X		(Spec. Cond.) (umhos/cm)	492
X	53	Sulfate SO_4	10 *
X		Zinc Zn	0.0

RECEIVED MAY 1 1984 ILL. E.P.A. STATE OF ILLINOIS

*Analyses are to be performed on unfiltered samples. *Values exceeding no. of places shown are reported in the lab comments section. Tests requested but not run should also be explained in the lab comments section.

[1]Alkalinity is to be determined as ppm of $CaCO_3$ at pH 4.5.

[2]Cyanide is to be reported as free cyanide.

LPC-8 REV. 3/77

5694 MAY22

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL
CHEMICAL ANALYSIS FORM

Key for Determining Type of Monitoring Point

(S) Surface Water	(G) Ground Water	(L) Leachate	(X) Special
(1) Upstream	(1) Monitor Well	(1) Flow or Seep	(1) Soil
(2) Mid-site	(2) Private well	(2) Pond	(2) Waste
(3) Downstream	(3) Spring	(3) Collection System	(3) Other
(4) Run-off	(4) Lysimeter		
(5) Impounded	(5) Public W S		

Name (Private Well, Stream, Spring, Impounded Water Only)

L P C S M 0 1 0 (1) (8) SITE INVENTORY NUMBER 20101501 (19)

MONITOR POINT NUMBER G101 (17) (20) DATE COLLECTED 052281 (21) (26)

Winnebago Co. - LPC REGION R (27)

Loves Park (Location) / Rockford Park District (Responsible Party)

Legal (1); Illegal (2); Indicate One: 1 (28) Board Order (X) (29)

Time Collected 9:30 a.m. Unable to collect sample (X) (30)

Stick-up 1.4 ft. (31) (33) Depth to water 14.4 ft. (from T.O.C.) (34) (36)

Sample temp. 55 ° F (37) (39) Background (X). . . . (40)

Ground water sampled by (Indicate one): (1) Bailing; (2) Pumping; (3) Other (Specify) 2 (41)

Sample Appearance: Clear No Odor. TD=19.8'. Pumped 2 volumes. Immediate recharge.

Collector comments: Previously sampled 4-13-81. Ground water may be polluted. 8 parameters exceeded stds.

K. Bardo — Collected by — DLPC — Div. or Company

K. Bardo — Transported by — DLPC — Div. or Company

LAB USE ONLY

Lab No. C005694

Date Rec'd 5-22-81

[signature] Time 3:45 p.m.

Sample temp. acceptable (YES) NO

Sample properly preserved (YES) NO

Date completed

Date forwarded

[signature] Supervisor Signature

Environmental Protection Agency
Division of Laboratory Services
2121 W. Taylor Street
Chicago, Illinois 60612

LPCSM020
Lab Comments:

(27) (36)

(37) RECEIVED (46)

(47) JUN 24 1981 (56)

(57) ILL. E.P.A. - D.L.P.C. STATE OF ILLINOIS (66)

(67) (76)

Private Lab (X)
IEPA Lab (X) X (77)

	Parameter		Result
27	X	Alkalinity	536
34	X	Ammonia as N *	11.0
37		Arsenic As	
40	X	Barium Ba *	1.9
49		BOD 5	
53	X	Boron B *	1.0
58	X	Cadmium Cd	0.00
64		Calcium Ca	
69		COD	
73	X	Chloride Cl	25
27		Chromium Cr (total)	
33		Chromium (hex)	
39	X	Copper Cu	0.0
45		Cyanide CN	
52		Fecal Coli	
56	X	Fluoride F	0.1
61	X	Hardness	140
65		Iron Fe	
70		Lead Pb	
27		Magnesium Mg	
32	X	Manganese Mn *	0.38
38		Mercury Hg	
46		Nickel Ni	
51		Nitrate-nitrite N	
56	X	Oil and Grease	0
60		pH (Units)	
63	X	Phenolics	0.00
70		Phosphorus P	
75		Potassium K	
27	X	T.D.S. (180°C) *	650
31		Selenium Se	
38		Silver Ag	
44		Sodium Na	
49		SC (umhos/cm)	
53	X	Sulfate SO4	4
58		Zinc Zn	

*Analyses are to be performed on unfiltered samples. *Values exceeding no. of places shown are reported in the lab comments section; tests requested but not run should be explained in the lab comments section.

R.M.

3 Jar - Plain
4 oz - [illegible]

ENVIRONMENTAL PROTECTION AGENCY STATE OF ILLINOIS

DIVISION OF LAND/NOISE POLLUTION CONTROL ANALYSIS FORM

C000805

Key for Determining Type of Monitoring Point

(S) Surface Water	(G) Ground Water	(L) Leachate	(X) Special
(1) Upstream	(1) Monitor Well	(1) Flow or seep	(1) Soil
(2) Mid-site	(2) Private well	(2) Pond	(2) Waste
(3) Downstream	(3) Spring	(3) Collection System	(3) Other
(4) Run-off	(4) Lysimeter		
(5) Impounded			

Name (Private Well, Stream, Spring, Impounded Water only)

(1) L P C S M 0 1 0 (8)

SITE INVENTORY NUMBER (9) 2 0 1 0 1 5 0 1 (16)

MONITOR POINT NUMBER (17) G 1 0 1 (20)

DATE COLLECTED (21) 0 8 2 4 8 2 (26)

Winnebago Co. - LPC REGION (27) R

Loves Park (Location) / Rockford Park District (Responsible Party)

Legal (1); Illegal (2); Indicate One: (28) 2

Board Order (X) (29)

Time Collected 9:20 a.m. ~~p.m.~~

Unable to collect sample (X) (30)

Stick-up (31) 1.5 (33) ft.

Depth to water (from T.O.C.) (34) 13.9 (36) ft.

Sample temp. (37) 58° (39) F

Background (X). . . . (40)

Ground water sampled by (Indicate one): (1) Bailing; (2) Pumping; (3) Other (Specify) _____ (41) 1

Sample Appearance: Slightly silty, light brown, slight oil/solvent-like odor.

Collector comments: Purged by bailing 3 volumes. TD = 40.1'. Fast recharge. Also sampled for volatiles + solvents.

K. Bardo — Collected by

DLPC — Div. or Company

K. Bardo → D. Malysz — Transported by

DLPC → DWPC — Div. or Company

LAB USE ONLY

Lab No. C000805

Date Rec'd 8-26-82

Rec'd by _____ Time 12:50 a.m. p.m.

Sample temp. acceptable YES NO

Sample properly preserved YES NO

Date completed _____

Date forwarded SEP. 10 1982

J Daugherty
Supervisor Signature

Name Environmental Protection Agency
Division of Laboratory Services

Address of Lab 2121 W. Taylor Street
Chicago, Illinois 60612

LPCSM020 Lab Comments:

(27) (36)

(37) (46)

(47) (56)

(57) (66)

(67) (76)

Private Lab (X)

IEPA Lab (X) (77) X

LPCSM030

		PARAMETERS*	PPM*
27		Alkalinity[1]	
31		Ammonia as N	
37		Arsenic As	
44	X	Barium Ba 1.0	< 1.3
49		BOD -5	
53		Boron B	
58	X	Cadmium Cd	0.00
64	X	Calcium Ca	112 *
69		COD	
73		Chloride Cl	

LPCSM040

27	X	Chromium Cr (tot)	0.00
33		Chromium Cr^{+6}	
39	X	Copper Cu 0.02	< 0.04
45		Cyanide[2] CN	
52		Fecal Coli (#/100 ml)	
56		Fluoride F	
61		Hardness $CaCO_3$	
65	X	Iron Fe 1.0	< 5.6
70	X	Lead Pb	0.00

LPCSM050

27	X	Magnesium Mg	35.4
32	X	Manganese Mn 0.15	< 0.58
38		Mercury Hg	
45	X	Nickel Ni	0.6
51		Nitrate-nitrite N	
56		Oil and Grease	
60		pH (Units)	
63	X	Phenolics 0.001	< 0.010
70		Phosphorus P	
76	X	Potassium K	26.9

LPCSM060

27		R.O.E. (180°C)	
31		Selenium Se	
38	X	Silver Ag	0.00
44	X	Sodium Na	28.4
49		SC (umhos/cm)	
53		Sulfate SO_4	
58	X	Zinc Zn	< 0.0
63			

*Analyses are to be performed on unfiltered samples. *Values exceeding no. of places shown are reported in the lab comments section; tests requested but not run should also be explained in the lab comments section.

[1]Alkalinity is to be determined as ppm of $CaCO_3$ at pH 4.5.

[2]Cyanide is to be reported as free cyanide.

H. W.

ILL. E.P.A. STATE OF ILLINOIS

PC-8 REV. 3/77

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL
CHEMICAL ANALYSIS FORM

Key for Determining Type of Monitoring Point

(S) Surface Water	(G) Ground Water	(L) Leachate	(X) Special
(1) Upstream	(1) Monitor Well	(1) Flow or seep	(1) Soil
(2) Mid-site	(2) Private well	(2) Pond	(2) Waste
(3) Downstream	(3) Spring	(3) Collection System	(3) Other
(4) Run-off	(4) Lysimeter		
(5) Impounded	(5) Public W S		

Name (Private Well, Stream, Spring, Impounded Water only)

(1) L P C S M 0 1 0 (8) SITE INVENTORY NUMBER (9) 2 0 1 0 1 5 0 1 (16)

MONITOR POINT NUMBER (17) 6 1 0 (20) DATE COLLECTED (21) 0 4 1 3 8 1 (26)

Winnebago Co. - LPC REGION (27)

Loves Park (Location) / Rockford Park District (Responsible Party)

Legal (1); Illegal (2); Indicate One: (28) 2 Board Order (X) (29)

Time Collected 11:10 a.m. Unable to collect sample (X) (30)

Stick-up (31) 1.4 (33) ft. Depth to water (from T.O.C.) (34) 15.1 (36) ft.

Sample temp. (37) ° (39) Background (X). . . . (40)

Ground water sampled by (Indicate one): (1) Bailing; (2) Pumping; (3) Other (Specify) (41) 1

Sample Appearance: Slightly Silty - Brown, No Odor.

Collector comments: Removed 1 volume, Fast Recharge. TD=17.9' Was a wet week.

Ken. Barb — Collected by — DLPC — Div. or Company

K. Barb → Transported by — DLPC → Div. or Company

LAB USE ONLY
Lab No. C004993
Date Rec'd 4-14-81
Rec'd by K.Peterl Time 1:50 a.m.
Sample temp. acceptable YES NO
Sample properly preserved YES NO
Date completed
Date forwarded MAY 15 1981
Supervisor Signature

Name Environmental Protection Agency
Address of Lab Division of Laboratory Services
2121 W. Taylor Street
Chicago, Illinois 60612

LPCSM020
Lab Comments:
(27) Insufficient Sample (36)
(37) (46)
RECEIVED (47) (56)
MAY 1 1981 (57) (66)
ILL. E.P.A. – D.L.P.C.
STATE OF ILLINOIS (67)
Private Lab (X)
IEPA Lab "X" (77)

		Parameters	PPM
27	X	Alkalinity	*
31	X	Ammonia as N	12.0
37	X	Arsenic As	0.000
44	X	Barium Ba	1.6
48	X	BOD 5	< 3
53	X	Boron B	1.1
58	X	Cadmium Cd	0.01
64	X	Calcium Ca	118.6
69	X	COD	23
73	X	Chloride Cl	*
		LPCSM020	
27	X	Chromium Cr (total)	0.00
33	X	Chromium Cr+6	0.00
39	X	Copper Cu	0.08
45	X	Cyanide CN	0.00*
52		Fecal Coli (Membrane Filter)	
56	X	Fluoride F	Interference
61	X	Hardness as CaCO3	*
65	X	Iron Fe	0.5
70	X	Lead Pb	0.00
		LPCSM020	
27	X	Magnesium Mg	35.4
32	X	Manganese Mn	0.39
38	X	Mercury Hg	0.000
46	X	Nickel Ni	0.0
51	X	Nitrate-nitrite N	6.9
56	X	Oil and Grease	1
60	X	pH (Units)	7.7
63	X	Phenolics	0.013
70	X	Phosphorus P	0.00
75	X	Potassium K	29.1
		LPCSM020	
27	X	Total P (as PO4)	*
31	X	Selenium Se	0.00*
35	X	Silver Ag	0.00
44	X	Sodium Na	31.9
49	X	SC (umhos/cm)	982
53	X	Sulfate SO4	*
58	X	Zinc Zn	0.1
63	X	Sulfides	0

*Analyses are to be performed on unfiltered samples. *Values exceeding no. of places shown are reported in the lab comments section; tests requested but not run should also be explained in the lab comments section.

P. 1.